

FIELD TRIP REPORT: HYBRIDS AT OLD DOCK PRESERVE, NORTH CAROLINA

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Keywords: *Sarracenia*, field trip report, natural hybrids.

I awake to the blaring sound of my cell phone's alarm. It's 6:30 am and I am struggling to force myself awake after the exhausting heat and humidity we experienced the day before while hiking "million flava field." Spot Cullen is already awake and much too chipper for someone functioning on only six hours of sleep after a 36-hour flight and the airline losing nearly all of his luggage along the way. We get ready for our day, join our other group member, Daryt Frank, and "enjoy" some hotel breakfast of eggs, over-cooked turkey bacon, and make-your-own waffles. We then load the car and drive an hour to meet Brad Wilson and Rick McCarthy so we can tour our first location of the day in Columbus County, North Carolina (NC), the famous Old Dock Preserve owned by the North Carolina Nature Conservancy. They were kind enough to give us permission to visit the Preserve to photograph the plants. This location is known as the best natural population of *Sarracenia minor* remaining in NC. We are expecting to see *S. flava*, *S. purpurea* subsp. *venosa*, *S. minor*, and the hybrids *S. × catesbaei* (*flava* × *purpurea*) and *S. × swaniana* (*minor* × *purpurea*), as well as *Drosera intermedia*, *D. capillaris*, *Pinguicula caerulea*, and a few *Utricularia*. We meet Brad and Rick near the Green Swamp and I give them a quick rundown of all we are going to see and then drive the remaining half hour to our first location. We drive down dusty, sandy logging roads, struggling to keep the car straight as we progress to our destination. When we arrive and the dust settles we cover ourselves in sunscreen and bug spray. The mosquitoes from this location are infamous for causing pain, itching, and severe swelling in some cases. I once brought a friend to this site and by the time we left his eyes were nearly swollen shut from all of the mosquito bites. We walk past the locked gate and down the road until I find the unusually dry path into the savannah. The weeks leading up to this trip have been incredibly dry with very little rainfall. We immediately spot the mounds of *D. intermedia* in full bloom with lots of *S. flava* as we make our way through the overgrown wiregrass (*Aristida stricta*), bog myrtle (*Morella caroliniensis*), and inkberry holly (*Ilex glabra*). As I lead the way through the brush I'm on the lookout for the domed heads of *S. minor*, which indicate that the hybrids are nearby. I pass dozens of *S. purpurea* and *S. flava*, but no *S. minor*. Then I spot the first *S. minor* with pathetic looking pitchers from the *Exyra* moth larvae that plague pitcher plant bogs throughout the Southeastern U.S. I'm getting close! I continue onward for a few minutes passing many beautiful specimens along the way, but I'm looking for a specific patch of nearly a dozen *S. × swaniana* that is prime for photographing. I find the plants, take a few photos, and wait for Brad to set up so he can take photos of his own. While he sets up his tripod, I continue down the overgrown, nearly invisible path to see what I can find. I locate a few additional nice *S. × swaniana* to show the group and some great clumps of *S. minor*. Then I stumble upon one of the most exciting things I have ever found on any of my numerous plant expeditions.

I'm looking at a single plant of *S. × harperi*, the natural hybrid between *S. flava* and *S. minor* (Fig. 1), and only about a yard away is a complex hybrid involving all three *Sarracenia* species found at this site (Fig. 2). I call Brad over to confirm my identification of the plants and he agrees. We have found the first record of both of these hybrids in NC!

Based on the distribution of *S. minor* and *S. flava* in NC it would seem likely that one might be able to find this hybrid in any of the three counties in which they both reportedly occur, but this particular hybrid is extremely rare. As far as I can tell, neither of these plants has ever been recorded



Figure 1: *Sarracenia* \times *harperi*, the natural hybrid between *S. flava* and *S. minor*, found at Old Dock Preserve.

in NC. One reason for this is because in NC, *S. minor* typically blooms two to four weeks later than *S. flava*. This leaves only a very small window for these species to hybridize. There are few resources that list *S. x harperi* as occurring in the state, but none have links to verified reports or herbarium specimens. I personally believe that many of these resources base this on the distribution of the species rather than confirmed reports. I have searched through the herbaria at many local institutions including NCSU and UNC-Chapel Hill for specimens of these hybrids from North Carolina but to no avail. And a search of online herbaria yields no results.

I actually photographed the same *S. x harperi* nearly two years ago on two separate occasions not knowing exactly what I was looking at. However, the complex hybrid I had never seen before despite the two plants being only a few feet apart. Even if someone has reported this hybrid from the state before, this is still a significant find because of the extreme rarity of these hybrids.



Figure 2: A complex hybrid involving *Sarracenia flava*, *S. minor*, and *S. purpurea* subsp. *venosa*.